

Appl. No. 10/696,816
Reply to Office action of 04/07/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) An integrated circuit comprising an on-chip decoupling capacitor located over a topmost metal interconnect level.
2. (Original) An integrated circuit, comprising:
 - at least one lower metal interconnect level located over a semiconductor body;
 - a topmost metal interconnect level located over said lower metal interconnect level, said topmost metal interconnect level comprising a first and a second metal interconnect line;
 - a bottom electrode located over and in electrical contact with said first metal interconnect line;
 - a capacitor dielectric located over said bottom electrode; and
 - a top electrode located over said capacitor dielectric.
3. (Original) The integrated circuit of claim 2, further comprising a metal cap layer located over said top electrode and said topmost metal interconnect level, said metal cap layer electrically connecting said top electrode and said second metal interconnect line.
4. (Original) The integrated circuit of claim 3, wherein said metal cap layer comprises aluminum.
5. (Original) The integrated circuit of claim 2, wherein said top electrode comprises TaN, said capacitor dielectric comprises tantalum-oxide, and said bottom electrode comprises TaN.

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6. (Original) The integrated circuit of claim 2, wherein the top and bottom electrodes each comprise one or more layers of material selected from the group consisting of TaN, TiN, Ir, Ru, and Ta.
7. (Original) The integrated circuit of claim 2, wherein the capacitor dielectric comprises hafnium-oxide.
8. (Original) The integrated circuit of claim 2, wherein the capacitor dielectric comprises silicon-nitride.
9. (Original) An integrated circuit comprising:
 - a plurality of lower copper interconnect levels located over a semiconductor body;
 - a topmost copper interconnect level located over said plurality of lower copper interconnect levels, said topmost copper interconnect level comprising a first and a second copper interconnect line;
 - a bottom electrode in direct contact with said first copper interconnect line;
 - a capacitor dielectric located over said bottom electrode;
 - a top electrode located over said capacitor dielectric;
 - a protective overcoat located over said topmost copper interconnect level; and
 - an aluminum cap layer located, in part, over said protective overcoat and electrically connecting said top electrode and said second copper interconnect line.
10. (Original) The integrated circuit of claim 9, wherein said top electrode comprises TaN, said capacitor dielectric comprises tantalum-oxide, and said bottom electrode comprises TaN.

Claims 11-20 (Canceled).